

# NAGT Strategic Plan 2004

## Introduction

Beginning in 2002, the Executive Committee (ExComm) and the NAGT Council embarked on a two-year strategic planning exercise. Numerous discussions took place at annual meetings and at the ExComm spring meetings as well as at two strategic planning meetings held in Northfield, MN in 2003 and Williamsburg, VA in 2004. Drafts of documents were shared with NAGT Council and sections and input sought and taken into considerations.

At the NAGT Annual Meeting in Seattle in 2003, the Council approved the Strategic Plan and at Annual Meeting in Denver in 2004 the full plan and action plans will be approved. The ExComm and Council will also develop a two-year strategic budget that will incorporate the recommendations arising from the planning process.

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# NAGT STRATEGIC PLAN

(Approved by NAGT Council, 11/1/03)

## Vision

The National Association of Geoscience Teachers seeks to create a thriving community of formal and informal educators working together to create a broad understanding and appreciation of Earth.

## Mission

The mission of NAGT is:

1. To foster improvements in the teaching and learning about earth as a system at all levels of formal and informal instruction
2. To emphasize the relevance and cultural significance of geoscience to all people
3. To foster and disseminate knowledge of and research in geoscience education
4. To promote professional growth of our members.

## Goals and Objectives

### Educational Goals

#### **Goal 1: To advance the development, dissemination, and implementation of quality curricula and teaching practices**

- A. Promote undergraduate and graduate curricula that support integrated earth system education and meet the professional needs of future earth and environmental science professionals and teachers
- B. Promote professional development and collaboration among earth science educators at all levels
- C. Support and encourage research on teaching and learning including assessment, to improve geoscience education and share results with members and the geoscience community at large
- D. Develop the habit of collaboration and sharing in the development and use of teaching resources
- E. Support the development of culturally relevant and widely accessible learning resources for diverse communities
- F. Create opportunities for members, sections, and the national organization to contribute to geoscience education projects in formal and informal settings

#### **Goal 2: To support and advance the use of effective science pedagogy**

- A. Support and promote inquiry-based and other research-based teaching methods
- B. Support the use of methods and materials that address different learning styles
- C. Promote understanding of the role student attitudes toward science play in learning

### **Goal 3: To further earth system science approaches to geoscience education**

- A. Encourage, strengthen, and increase the participation of professional earth and space scientists studying all aspects of the Earth system in NAGT and its activities
- B. Consider strategies that can increase publication of atmospheric, ocean, hydrologic, biologic, environmental and space science subject matter that appeals to the full spectrum of K-16 and informal geoscience educators in NAGT publications.
- C. Support programs, workshops, and professional development opportunities for current and future science educators that increase understanding of an earth systems approach and its implementation

### **Goal 4: To help the geoscience community recruit, retain, and prepare the geoscience workforce**

- A. Work with minority-serving institutions, professional organizations, and programs to increase the diversity of the geoscience profession
- B. Promote discussion of the role and content of geoscience programs
- C. Work with NESTA, NSTA, and other organizations to recruit, prepare, and support continuing professional development of quality earth science teachers
- D. Support opportunities for students to have excellent field experiences

### **Advocacy Goals**

#### **Goal 5: To advocate earth and space science education for all students**

- A. Promote the integration of geoscience in K-12 curricula across the country
- B. Maintain and increase opportunities for inclusion of geoscience as part of the two- and four-year college curricula, with attention to minority serving institutions (MSI)
- C. Develop and support initiatives to enhance participation of students from groups underrepresented and underserved in the sciences at all levels
- D. Partner with organizations, policy makers, and others to provide geoscience education expertise on issues related to NAGT's mission
- E. Develop and participate in state-based partnerships that enhance the quality of K-12 earth science education

**Goal 6: To promote deep appreciation in the geoscience community that geoscience education is central to the continuing success of the profession.**

- A. Offer opportunities for high quality interaction between geoscientists and educators
- B. Develop new partnerships with professional societies across the full spectrum of the earth and space science community
- C. Advocate K-16 educational research and service as an important professional role for college and university faculty
- D. Maintain a prestigious set of honors and awards for excellence in geoscience education

**Goal 7: To promote public understanding and appreciation of the importance and significance in our culture of math and science in general and geoscience in particular**

- A. Contribute expertise in education to the outreach efforts of the geoscience community, including those targeting underrepresented groups
- B. Participate at local, state, and national levels to promote strong math and science education, including geoscience education
- C. Increase the presence of the geosciences in science and mathematics education
- D. Support and enhance opportunities for young students from underrepresented groups in the sciences to understand and appreciate the importance of the earth sciences
- E. Recognize the importance of and foster interactions with informal educators

## **Institutional Goals**

### **Goal 8: To support and sustain a membership that is actively engaged in the mission of the society.**

- A. Support and encourage the professional growth of our members
- B. Recruit, promote, and sustain a membership that accurately reflects the ethnic, cultural, disciplinary, and educational diversity of the nation
- C. Increase the active participation of K-12 teachers and informal educators in NAGT
- D. Develop, promote, and sustain activities that allow members from all parts of the geoscience education community to meet one another and share their professional expertise

### **Goal 9: To ensure and enhance the financial and operational viability of the organization.**

- A. Implement ongoing strategic and budgetary planning processes that support the goals and objectives of the organization
- B. Maintain an open, equitable, and efficient governance structure appropriate for a volunteer organization with strong sectional, regional, and national programs
- C. Support and enhance effective communication and cooperation within the organization, among members, sections, and the national organization
- D. Implement strategies for developing and training new leadership for sections and the national organization

### **Goal 10: To assure that NAGT sections thrive and serve their members**

- A. Explore opportunities for cooperation and collaboration among sections and define the role of the national organization in facilitating these initiatives
- B. Implement a strong liaison program that assures timely communication between sections and the national organization
- C. Put in place diverse strategies supporting effective communication and coordination among members, sections, and the national organization. (deleted last phrase).

## Summary of Current NAGT Activities Relating to Strategic Goals and Objectives

### National level:

1. Award programs
  - a. OESTA
  - b. Shea
  - c. Miner
  - d. Stout
  - e. TA
2. Distinguished speakers program
3. National geoscience professional program meeting activities (sessions, booths, shar-a-thons)
  - a. GSA
  - b. AGU
4. NESTA/NSTA meeting activities
5. Publications
  - a. JGE
  - a. Website
  - b. NAGT/AGI lab manual
  - b. Newsletter
6. Field camp scholarships, USGS/AASG/NAGT internships
7. Leadership development
8. Membership
9. Governance and management
10. ExComm representation at section and NSTA meetings
11. Advocacy
  - a. Honors/AP courses at HS level
  - b. State and national curriculum projects and efforts (AGI, GSA)
  - c. Geoscience departments at risk
12. Cutting Edge and other workshops
13. Sponsored programs
  - a. DWEL
  - b. DLESE
  - c. Geoscience departments
  - d. Starting Point

### Section level:

1. Section meetings
  - a. Independent: NW, FW, E, SW
  - b. At GSA sections: C, SE, SW
  - c. Field trips
    - i. Independent: TX, FW, NE, E, C
    - ii. At GSA section meetings: C, SE
    - iii. At state/regional science teachers meetings

2. Outreach
  - a. Workshops
  - b. Membership drives: FW
  - c. Youth organizations: SE (scouts)
  - d. Special projects: FW (1906 commemoration)
3. Awards: all sections
4. Advocacy
  - a. Letter writing campaigns: NE (state parks), FW (college prep courses, "Save the Survey"), SE (state curricula)
  - b. State curriculum and assessment efforts: FW
5. Participation in professional meetings
  - a. Sessions: SE, C
  - b. Booths: C, NW, FW
  - c. Workshops (poss. CEU's): SE, FW
6. Publications
  - a. Newsletters: all active
  - b. Websites: all except NE
  - c. Field trip guides: FW, NE, NW, E
  - d. Virtual field trips: SE

## National Action Plan

1. Continue current programs that are deemed effective by Board, sections, and members
2. Advocacy
  - a. Coordinate, network, and share successful practices in statewide ES curricular issues at policy level [GW, EG, & SL]
  - b. Ambassadors to programs s.a. DLESE, GLOBE, etc. to encourage member participation and advocate for the ES's [EG]
  - c. Examine role of NAGT vis a vis AP/honors earth science course initiative
  - d. Develop (process needed) and use position papers on:
    - i. Importance of ES in K-12 curriculum
    - ii. ES literacy in the general population (state parks, etc.)
    - iii. ES in the liberal arts, general education core
    - iv. Creationism and evolution
    - v. Diversity
    - vi. Future of geoscience programs/workforce
    - vii. Other?
3. Publications & products
  - a. Occasional Notes
  - b. NAGT brochure (?)
  - c. Develop website as extended means of communicating within and without NAGT and enhance support and management of website
  - d. Evaluate opportunities for special, topical series of NAGT publications, e.g., Centennial of the 1906 Earthquake special volume
  - e. Create an on-going editorial/publication board for JGE to assure alignment of JGE with NAGT mission, goals, and objectives
  - f. Develop linkages between JGE and existing programs sponsored by NAGT, e.g., workshops, Distinguished Speakers series
  - g. Develop a web-based collection of successful NAGT and other activities by national, sections, and members [CM]
    - i. Maintain a list of sponsored programs and contacts on website
    - ii. Year of the Field prototype
4. Promoting geoscience education research by:
  - a. Explore new and expanded partnerships: JGE and Starting Point
  - b. Encourage/facilitate greater participation of members in research-based programs in earth sciences (ROLE) [see also 2.b above]
5. Membership
  - a. Better tracking/stewardship of membership to support national and section-level initiatives (membership database)



- b. Create a taskforce to develop a membership/marketing campaign plan, especially targeting K-12 and 2-year constituencies
  - c. Relationship to and collaboration with NESTA
  - d. Explore programs and opportunities for retired geoscientists, e.g., section webmasters
  - e. NAGT membership “kit” for distinguished, liaisons, section and national leadership, and others
6. Closer collaborations with sections
- a. Triennial meeting/retreat of section presidents with ExComm
  - b. Provide support and assistance to partner with sections and members to develop pilot initiatives whose impact is likely to be significant at the national level
    - i. FW section involvement in Centennial of the 1906 Earthquake commemoration in CA
    - ii. SE section exploration of summer high school field experience and programs to increase support for minority-serving institutions
    - iii. Seed money to revitalize defunct or struggling sections
7. Professional development
- a. Maintain distinguished lecturer program
  - b. Leverage ideas and practices from national workshops and programs, e.g., Cutting Edge, to serve sections and members
  - c. Enhance networking opportunities at and beyond GSA
8. Outreach
- a. Facilitate participation of geoscientists in NSTA and state science teachers organization meetings
  - b. Update and modernize NAGT booth
9. Governance and management
- a. Evaluate location of annual Council and ExComm meetings relative to GSA, AGU, NSTA
  - b. Review organization of business meetings held in conjunction with annual meetings of societies
10. Participate in AGU leaed collaboration on diversity in the geosciences.

## **NAGT 2004 Priority Action Agenda**

### **Enhancing Current Programs [timeline: progress report to 2004 Council meeting]**

1. Charge Membership Task Force (Feiss Committee) to:
  - a. Complete analysis of current membership
  - b. Set Membership growth goals aligned with strategic G&O, esp. diversity goals and increasing representation of ocean and atmospheric sciences
  - c. Develop membership/marketing plan and materials
  - d. Develop membership “kit” for DS, and NAGT leaders
2. Pending report of Publications Review Committee (Good Committee), ExComm creates and charges JGE/Web editorial board/group to refine, implement, and oversee on-going JGE and website enhancements.
3. ExComm charges co-executive director (MacGregor) to investigate partnering with CEHR/DLESE to host social event at AGU and explore booth at AGU and Excomm encourages members to propose sessions for NAGT sponsorship at AGU (Budget implication: \$2000 max.)
4. ExComm to re-evaluate NAGT support for Field Camp Scholarships following report from Dilik Committee

### **New Programmatic Initiatives [timeline: report at 2004 Spring ExComm meeting]**

5. ExComm to create NAGT Earth Science Education Policy group (Geary White Paper) to:
  - a. Collect and develop position/advocacy white papers
  - b. Support members to become effective advocates for ES Education (e.g. ESE Ambassadors in support of State-based alliances---Rev. II).
  - c. Work to include earth science in curriculum and assessment policy initiatives at the state level
6. ExComm to create Education Research initiative taskforce (Linneman White Paper) consistent with goals and objectives of Strategic Plan
7. ExComm to use FW Section initiative (Hayes/MacGregor White Paper) on 1906 commemoration to explore ways in which National can support section initiatives
8. President to develop Year of the Field Trip Working Group (Manduca Committee)

### **Meeting Institutional Goals [timeline: action at spring 2004 ExComm meeting]**

9. ExComm to investigate possibility of triennial meeting/retreat (@ section meeting) of section presidents with ExComm (Scott)
10. Excomm to task standing committees (Distinguished Speakers, Awards, Publications) to review their activities and recommend actions to align with goals and objective of the Strategic Plan. Specifically, to:
  - a. Examine current program effectiveness
  - b. Examine synergies among NAGT programs
  - c. Look for external collaboration/partnerships

11. Create ad hoc Investment Committee to recommend investment strategy and financial plan (dues, endowments, reserve fund, budget surplus).